



Vegetation and Soil Characteristics of Restored Freshwater Tidal Marshes at Kingman Lake, Washington, D.C.

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Statement of Problem: Major restoration projects should have a component that includes evaluation of success. This study is part of a 5 year post-reconstruction monitoring effort supported by the Corps of Engineers (COE) to evaluate the progress of the reconstructed freshwater tidal wetland (Kingman Marsh, 2002) in the Anacostia River, Washington, D.C.

Objectives: The objective of the study is to document the vegetation, soils, birds, macrobenthic organisms and hydrology of the reconstructed wetland at Kingman and compare it to a suite of reference wetlands in and outside the Anacostia watershed.

Approach: This multi-million dollar project at Kingman Marsh has included a five year post-reconstruction monitoring study (2000-2004) of which the USGS in cooperation with the University of Maryland has responsibility (funded by COE) for the vegetation, soils, seed bank and hydrology components. These are important characteristics that affect the value of the site as habitat for fish and wildlife, the biogeochemical and hydrologic functioning of the site, and the aesthetics of the site. Monitoring of vegetation will include: standing vegetation and buried viable seeds (i.e., the seed bank) while. soils will include measurements of soil particle size, organic matter, and redox potential (Eh). Hydrology will involve collection of tidal data and relate that to vegetation response.

Selected Reports and Other Products:

"Year 3 (2002) Annual Reports for the Kingman Monitoring Project". USGS/PWRC Report

Several posters used at a variety of meetings

Relevance and Benefits:

1. Improve land-use and watershed data to better understand the ecology of our living resources in the Bay. Relates especially to restored ecosystems.
2. Assess factors influencing health of the Bay's biota and also assess impacts of biota on the processes involved with environmental restoration.